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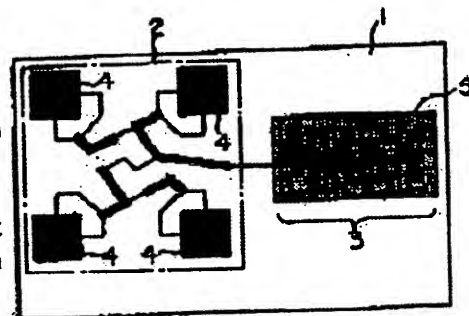
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## (54) RECEIVER

## (57)Abstract:

PURPOSE: To attain compactness and high performance in a receiver provided with a plane antenna and receiving circuit connected thereto.

CONSTITUTION: A silicone substrate 1 obtained by forming a half-insulating compound semiconductor layer 5 on a part of a surface by crystal growth is used as a substrate, a plane antenna 2 consisting of one or plural antenna elements 4 is formed on the surface of the substrate 1 except the area on which the layer 5 is formed and a receiving circuit 3 to be connected to the antenna 2 is formed on the layer 5. Since the antenna 2 and the circuit 3 are mounted on the same substrate, the size and weight of the whole receiver can be reduced, and since the antenna 2 is formed on the substrate 1 having a comparatively small dielectric constant  $\epsilon$ , band width can be extended. Although the monolithic formation of a high frequency receiving circuit on a silicone substrate is generally difficult, such difficulty can be removed in this invention forming the receiving circuit 3 on the half-insulating compound semiconductor layer 5.



## LEGAL STATUS

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